

I claim:

1. A pressure-sensitive variable-conductance analog sensor with tactile feedback actuatable by a single human finger, comprising;

a housing;

electrically highly conductive elements at least in-part within said housing;

a depressible actuator retained by said housing and in-part exposed external to said housing for depression by a single human finger;

a resilient snap-through dome-cap positioned within said housing and depressible with force from said actuator applied to said dome-cap to cause said dome-cap to snap-through and create a snap-through tactile feedback detectable by the finger depressing the actuator; and

pressure-sensitive variable-conductance material positioned within said housing, said pressure-sensitive variable-conductance material electrically positioned as a variably conductive element between said highly conductive elements, said pressure-sensitive variable-conductance material further positioned for receiving force applied to said dome-cap.

2. A pressure-sensitive variable-conductance analog sensor with tactile feedback in accordance with claim 1 wherein said pressure-sensitive variable-conductance material is variable in terms of electrical resistivity, the electrical resistivity lowering with increasing force applied to said depressible actuator.

3. A pressure-sensitive variable-conductance analog sensor with tactile feedback in accordance with claim 2 wherein said housing is formed of plastic and said dome-cap is metallic.

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4. An improved analog sensor actuated by a single human finger, the sensor providing a variable output used for controlling an electronic game;

wherein the improvement comprises:

5 snap-through structuring for providing a snap-through tactile feedback to the finger.

5. An improved analog sensor in accordance with claim 4 wherein said analog sensor is a pressure-sensitive analog sensor and said single human finger is a single human thumb.

6. An improved analog sensor in accordance with claim 5 wherein said snap-through structuring includes a metallic dome-cap.

7. An improved momentary-On snap-through switch of the type having a housing; a resilient snap-through tactile feedback dome-cap positioned within said housing; a depressible actuator retained by said housing and in-part exposed external to said housing for being depressed by a single human finger;

wherein the improvement comprises:

analog structuring within said housing for creating a variable electrical output representational of variable depression of said actuator.

8. An improved momentary-On snap-through switch in accordance with claim 7 wherein said electrical output is variable in terms of electrical resistivity, the electrical resistivity lowering with increasing depression of said actuator.

9. An improved analog sensor of the type having at least two highly conductive electrical elements operationally connected to pressure-sensitive analog

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structure; a depressible actuator in-part exposed to be depressible toward said pressure-sensitive analog structure for supplying an analog electrical output according to depression of said actuator;

5 wherein the improvement comprises:

a resilient snap-through dome-cap positioned to provide tactile feedback through said actuator to a human user's thumb depressing said actuator.

10 10. An improved analog sensor in accordance with claim 9 wherein said snap-through dome-cap is metallic.

15 11. An improved pressure-sensitive analog sensor providing an electrically varying output, said varying output used for controlling an electronic game, the varying output representational of varying depressive input by a single human thumb,

wherein the improvement comprises:

20 a depressible resilient snap-through tactile element, upon depression said tactile element creates a tactile feedback detectable by the single thumb.

12. An improved pressure-sensitive analog sensor according to claim 11 wherein said snap-through tactile element is metallic.

25 13. An analog sensor, comprising;
means for varying electrical resistance for providing a varying output representational of varying depressive input by a single human finger; and

30 a depressible resilient snap-through tactile element, when depressed said tactile element creating a tactile feedback detectable by the single finger.

14. An analog sensor according to claim 13 wherein said analog sensor is a pressure-sensitive analog sensor.

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15. An analog sensor according to claim 14 further including an actuator positioned between the single human finger and said tactile element, and said tactile element is a dome-cap.

5 16. An analog sensor according to claim 15 wherein said dome-cap is metallic.

17. An analog sensor, comprising:
an actuator moveable by only a single human finger;
responsive to movement of said actuator is

10 first means for varying electrical resistance and providing a varying electrical output of said sensor; and responsive to movement of said actuator is

second means for providing a threshold tactile feedback detectable by the single human finger.

15 18. An analog sensor according to claim 17 wherein said second means includes a dome-cap structure, and said threshold tactile feedback is a snap-through tactile feedback.

20 19. An analog sensor according to claim 18 wherein said dome-cap is metallic.

20. An improved analog sensor of a type actuated by a single human finger, the sensor providing an analog electrical output used for controlling an electronic game; wherein the improvement comprises:
25 means for providing a user discernable threshold tactile feedback to the finger.

21. An improved analog sensor in accordance with claim 20 wherein said user discernable threshold tactile feedback is a snap-through tactile feedback.

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22. An improved analog sensor in accordance with claim 21 wherein said means includes a metallic dome-cap.

5 23. An improved analog sensor in accordance with claim 21 wherein said analog sensor is a pressure-sensitive analog sensor, and the single human finger is a single human thumb.

10 24. An improved analog sensor in accordance with claim 23 wherein said means includes a non-metallic dome-cap.

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